Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1. - 15. (Cancelled)

16. (Previously Presented) The method of claim 44, further comprising prior to, during, or after steps (i) and (ii) contacting said sample with

a solution that preferentially lyses cells of a second type, to cause greater lysis of cells of the second type compared to cells of the first type.

17. (Previously Presented) The method of claim 44, further comprising after steps (i) and (ii) collecting one or more cells of said first type.

18. - 23. (Cancelled)

24. (Currently Amended) The method of claim 16, wherein said solution comprises $NaHC\cancel{03}O_3$ and acetazolamide.

25. (Previously Presented) The method of claim 16, further comprising the step, after said lysis, of diluting the product of said lysis with a diluent.

26. (Cancelled)

27. (Currently Amended) The method of claim [[45]] 44, wherein said binding moiety comprises an anti-CD71, an anti-CD36, an anti-GPA, or an anti-CD45 antibody, or a combination thereof.

28. - 43. (Cancelled)

44. (Currently Amended) A method of producing a cell population enriched in a first type of cell larger than an adult, enucleated red blood cell, said method comprising:

continuously flowing a blood sample of a specific volume through a channel in a microfluidic device comprising;

(i) continuously flowing the blood sample past a series of obstacles in the channel, the obstacles fixed in position separated by gaps arranged so that flow of ~~said~~ the blood sample past the obstacles directs adult, enucleated red blood cells and cells smaller than adult, enucleated red blood cells in a first direction and directs cells larger than adult, enucleated red blood cells in a second direction to produce a first sample enriched in ~~said~~ cells larger than adult, enucleated red blood cells; and without stopping the flow of the first sample,

(ii) continuously flowing ~~said~~ the first sample past obstacles that each comprise one or more binding moieties that preferentially bind ~~said~~ to the first type of cell in ~~said~~ the first sample, thereby producing a population enriched in ~~said~~ the first cell type.

45. (Cancelled)

46. (Original) The method of claim 44, wherein said first type of cell is a fetal red blood cell.

47. (Cancelled)

48. (Previously Presented) The method of claim 44, wherein at least 60% of cells of said first type in said sample are bound to said obstacles of step (ii).

49. (Cancelled)

50. (Previously Presented) The method of claim 44, wherein said obstacles of step (ii) are ordered in a two-dimensional array.

51. - 69. (Cancelled)

70. (Previously Presented) The method of claim 44 further comprising after step (ii) releasing cells bound to said obstacles.

71. (Previously Presented) The method of claim 70, wherein said releasing comprises applying a shear force or lysing said bound cells.

72. (Cancelled)

73. (Previously Presented) The method of claim 70, further comprising analyzing the cellular contents of said cells after said releasing.

74. (Currently Amended) The method of claim 73, wherein said analyzing comprises Fluorescence In Situ Hybridization (FISH)~~FISH~~.

75. (Previously Presented) The method of claim 73, wherein said analyzing comprises nucleic acid analysis.

76. (Currently Amended) The method of claim 44 [[70]], wherein said first type of cell comprises fetal cells, epithelial cells, tumor cells, stem cells, bacteria, protozoa, or fungi.

77. (Previously Presented) The method of claim 70, further comprising identifying one or more cells of said first type after said releasing.

78. (Previously Presented) The method of claim 70, wherein said binding moiety comprises an antibody.

79. (Previously Presented) The method of claim 78, wherein said antibody is a fetal-cell specific, epithelial-cell specific, tumor-cell specific, stem-cell specific, bacteria specific, protozoan specific, or fungal specific antibody.

80. (Cancelled)

81. (Previously Presented) The method of claim 44 further comprising staining cells bound to said obstacles of step (ii) to identify cells bound thereto.

82. (Previously Presented) The method of claim 81, further comprising analyzing the cellular contents of said cells during or after said staining.

83. (Previously presented) The method of claim 82, wherein said analyzing comprises nucleic acid analysis.

84. (Currently Amended) The method of claim 81, wherein said staining comprises Fluorescence In Situ Hybridization (FISH)~~FISH~~.

85. (Previously Presented) The method of claim 81, wherein said first type of cell comprises fetal cells, epithelial cells, or tumor cells.

86. (Previously Presented) The method of claim 81, further comprising identifying one or more cells of said first type during or after said staining.

87. (Previously Presented) The method of claim 81, wherein said binding moiety comprises an antibody.

88. (Previously Presented) The method of claim 87, wherein said antibody is a fetal-cell specific, epithelial-cell specific, tumor-cell specific, stem-cell specific, bacteria specific, protozoan specific, or fungal specific antibody.

89. – 130. (Cancelled)